



THE BLURB

PHILMONT MOBILE RADIO CLUB INC.

APRIL
1962



~ Das songfesten und das brew spielen
mit geschlurpen, ist commencent 6:30 PM.

Published Monthly by the
Phil-Mont Mobile Radio Club

EDITOR

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STAFF

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Cartoonist	W3YHV
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Boss Stitcher	K3DJE
Printer	K3GNM
Collator	W3QQH

The "Blurb" is published by and for the members of Phil-Mont to further the interest of Amateur Radio in general and mobile Radio in particular. We endeavor to keep the news accurate, interesting and in a small way educational. Copying and quoting is permitted, provided credit lines are included. Commercial use is not permitted and subscriptions are gladly exchanged with other radio clubs.

DEADLINES

The "Blurb" is mailed on the last Monday of the month. All material for the "Blurb" must be received by the Editor, W3ZPP, before the 15th of the month.

1961 CLUB OFFICERS

Pres.	Lloyd Sherman	W3CDY
V. Pres.	Chas. Greenwood	W3GOW
Treas.	Bob Diefenderfer	K3DJE
Sec.	Enos Bartol	K3GNJ
Ad. of Dir:	W3's NIP, VVS, QQH, AWH, AK, DSG, WNC and all 1961 club officers	

MEETINGS

Regular meetings are normally held on the 1st. Monday of the month. Check the calendar at right for the exact date. Meetings are held at the FRANKLIN INSTITUTE at 21st. and the Parkway, starting at 2000 hours (8 PM)

NET AND NET FREQUENCIES

Ch 1 - 29493 Kcs.	Ch 3- Unassigned
Ch 2 - 29629 Kcs.	Ch 4-50.7 Mcs.
Scrambles Egg Net	0730-0830
Weekdays	
Ten on Ten Sundays	1000-1100
Blarney sessions any-time	Ch 1 or 2
29493 Monitored daily 0930-2400 for the benefit of mobiles in the Phila. area.	

PMRC CALENDAR

DON'T MISS THE
STAG DINNER —
CHECK THE FRONT
COVER.

NOTE: TECHNIGRAM TITLE
SHOULD READ
"TRANSISTORIZED TNS"

Sam's Corner



There is an old axion, "Talk is Cheap", that we frequently accept with little reservation. "Talk" is obviously the statement or statements uttered by the speaker. The word "cheap" as defined by O. M. Daniel as, "not costing much" or "of little value". Since the word "cheap" seems to be leading us two ways, let's choose to pursue one of these.

If after listening to the utterance of several statements, you conclude that, "the statements are of little value", you are probably listening to some ham. No, I said "ham", not Radio Amateur, even though he could be both and probably too many of us are. As radio amateurs, we know the conversation drend, so familiar, with carrier on, mike in hand, and blah, blah, blah. Truly a transmission of little value. On the other hand we may include in our transmissions, statements that are a discredit, harmful, slanderous or otherwise derogatory. Usually these are made impulsively. These are also of "little value" and perhaps better said of "no value". Such statements may even prove to be costly. Costly in reputation, respect and regard. At the expense of what may be repetition, nothing so far has been made in reference to what has happened on the Phil Mont channel. If you feel the show fits, as the old saying goes, but on the contrary, please do not try to wear it. It is not intended for you. Some of the channel chatter, in the opinion of some monitors has fallen into this category. Except in rare cases, it was the intend of the operator to amuse or needle a fellow ham. I do wonder however, where do those fellows get those big needles?

The other part of our earlier definitika was "not costing much", talk has such a prominent place in our daily lives, the more we talk the more likely the chance of not giving adequate thought to what we say.

At this point you most likely are asking, "what would be considered go good conversation". It would be foolhardy to try to provide an answer.

Our best teaching tells us, "there is a time and place for everything". As you can well realize, time and place to hand-in-hand. If the time is right, the place may not be and conversley, it may not be the right time when the place is right. The las two words, "for everything" cover a world of topics. We can barely sample these topics as they apply to ham radio.

We like to tell the other fellow about our receiver, transmitter, phone patch, antennas, shack lay-out, how we do it, QTH, etc. We enjoy griping about the QRM or QRN, expound our pet peeve, needle the other guy, or otherwise blow off steam. Some like to play cops, others carry their makk of "distinction" or disjunction by the modulation that begins or ends their transmission. (As soon as I can understand that modulation and learn to spell it, I'll look it up in O. M. Daniel's unabridged version) But anyway there are so many topics that have a good PLACE in ham radio.

There are many TIMES you listen to the amateur frequencies. You may listen to the Phil mont channel more frequently. Have you noticed how infrequently those on the give a discâurse on their gear, give signal reports or make ditto type transmissions. Have you also noticed how frequently the QSO's cover detailed discussions on special gear or parts of rigs, concern for the other fellows problems and their solutions, a welcome to the new comer and a cheery hello to a friend.

THE PREZ SEZ (cont'd)

By our own measure we choose the topic of conversation. When a stranger shows up on the frequency (who, with a ham ticket is a stranger!) lets treat him like a Phil-Monter (and I feel like we have). Now if he's a cop (policeman with a (ham) ticket) better give him a 10-4. If he is a sound-effects man, well, Phil-Mont will not let him down. Chances are the next guy on the channel will be one you QSO'ed many time before. We don't bore him with ham routine but greet him as we do our daily acquaintances. The gear is the same old gear, the day is a new one. The voice is the same old voice, the words can be new or carry a sunny tone, portraying only you.

Over the many years, countless QSO's have transpired on Phil-Mont Channel One. The topics would be far too numerous to count. The present leaves us with very fond remembrances of this activity. Let us continue to carefully choose the "time and place" for everything that modulates are rig. You see, usually one transmits but many listen, if we like what we hear. It costs little to choose wisely what language and tone we modulate the rig with.

"Talk is Cheap" as long as we do not use "Chesp Talk"

See you on the Channel de W3CDY

PASSING OF THE PLUME

This will be my last issue as editor of the "Blurb". Bob, K3KUD has very kindly volunteered to take over the duties as editor.

I would like to thank all who have helped me on the staff and Edna XYL of W3LEM who did the typing. I appreciate your efforts and contributions.

The "Blurb" is about to make some changes and to take on a new look. There will be a new editor, new staff and a new method of reproduction, I am sure these will meet with your approval when you get your next issue.

I hope that more of you will get behind this effort and help out your new editor by contributing an article or two. Many of you fellows are much too modest, scribble a note to your editor let him know what you are doing with your hobby. If you see something that interests you let Bob know about it, it's sure to interest the club too.

Send all material to new Editor:

"Bob" Schmalewske K3KUD
528 Melody Lane
Glenside, Penna. Tel. TU 4-1884

Thanks a million to all

Charles W3ZPP

WISE CRACKS (Florida Skip)

Running a newspaper is one place where you cannot get lost because we've got half of our subscribers telling us where to go---There's many a man of letters who wishes he had 'em back---Something for nations to think about: A nuclear war won't determine who is right-only who is left---The Armistice was signed on November 11, 1918, and since then every year there have been two minutes of peace---For every man who lives to be 85, there are seven women-but by then its too late---There are many people in this country who would have a much fatter wallet if they would simply remove all the credit cards from it---Most of us follow a path that someone else beat out for us.---Amen.

CERTIFICATE

QM's who would like to present their XYL's with a handsome 4 color certificate for their cooperation with our hobby may obtain one by just send XYL's full name and address to:

Anne Pitoher K4RDX
RFD #2
Stuard, Florida.

OFFICIAL BULLETIN NR 835 FROM ARRL HEADQUARTERS, WEST HARTFORD, CONN. FEB 25 1962 to ALL RADIO AMATEURS

One amateur was electrocuted and another had a close call recently, both caused by failure of bypass capacitors in the primary circuit of the AC power supply. These accidents could have been avoided by use of a common ground system linking all the equipment chassis to a water pipe or other good ground. Send stamped self addressed envelope with a note requesting a copy of the Safety Code to ARRL. Please indicate the station from which you copied this bulletin. Switch to safety and stay alive.

OFFICIAL BULLETIN NR 836 FROM ARRL HEADQUARTERS, FEB. 25, 1962 to ALL RADIO AMATEURS

FCC has now officially proposed in Docket 14907 to charge fees for licensing services. Amateur applications would require a five dollar fee whether new, renewal, modification, or duplicate. Fees for other services range from two dollars for the lowest grade commercial operator to two hundred fifty dollars for a television broadcast station. April QST will carry details to permit amateur comment by the deadline of April 16.

OFFICIAL BULLETIN NR 837 FROM ARRL HEADQUARTERS, MARCH 2, 1962 to ALL RADIO AMATEURS

FCC has denied the League petition for an end to the dual identification requirement for amateurs using radioteletype. Dual signaling is necessary, the FCC says, since amateurs are not assigned specific frequencies and mutual interference between adjacent amateur signals make positive identification of RTTY stations difficult for its monitors. Further, mobile monitoring vehicles are not equipped for RTTY. Full text of the decision will be in April QST.

"YEAR OF THE OSCAR"

North Penn A.R.C. Banquet

Place: Souderton Fire Hall

Time: 7:00 PM

Date: May 12th, 1962

Cost: \$3.50 in advance of May 4th.

Dave, K3HJN BR 5-8522

Herb, W3BPM 584-4546

MORE SWAP AND SHOPPE

For Sale: Heathkit S B excellent condition latest correction guaranteed
\$65.00 W3BHH 4006 N. 12th. St. Phila. 40, Pa. DA 4-3394.

"on frequency, off frequency, 29,493, 29,493.2, 29,494.5, 29.5, Channel 1, Channel 1A,". "Sorry, missed your three pips" will get the reply, "Get a wide-band receiver." Et ad infinitum! Follows is a report which may explain some mysteries why, fr'instance, although W3XXX could hear your subsequent transmissions, he could not hear your three-pip-breakin, all other things being equal. If the signals are within about 100 cycles of each other, above 4 kc., also, these heterodyning pips may be beyond the limits of the audio or audio and r.f. range, respectively, of the receiver. On "10 on 10" Sun., Mar. 11, 1962 the following stations were logged. The accuracy of these measurements depended on several things.

- 1 The measuring instrument - Gertsch F-7, serial 266, factory checked on 22 Feb 62 to within .0001%. (on 29,493, that's about 30 cycles)
- 2 The operator - W3PST (no comments on his accuracy)
- 3 The duration, in time, of the signal under measurement - it takes a little more time than it takes to say "W3XXX this is W3PST, no traffic, over".
- 4 Other factors enter into it but these will suffice for now.

The first 4 digits are eliminated so add 29,490 to the figures which follow each call. All stations were not heard due to noise bursts, weak signal, strong signal (W3SAA) or no. 3 above. A word of explanations of the numbers which follow the calls. If a single digit appears, like a 3, that means 29, 493, give or take about a half kc. 3.2 is closer, 3.20, now we've got a sharp pencil, 3.200 is about the limit. Every 50 cycles can be measured "on the NOSE", but must interpolate in between. Have you got it? OK, let's go!

EZJ 0.6,	CW 0.8	LNQ 1.1	HQJ 1.2	LEM 1.3	KDO 1.8
DSG/m 1.9	YJM 2.4	GBA 2.5	WNC 2.6	UVL 2.8	CDY 3.048
QV 3	HFD 3.2	GNM 3.4	HYU 3.5	ZN 3.6	GIF 3.6
FPZ 3.7	PDJ 3.7	FDE 3.8	YHV 3.8	GNJ 3.8	WMO/m 3.9
PWG 3.9	QQH 3.9	GSU 4.0	QQH/m 4.2	JYA 4.2	ETA 4.25
DSG/m(2) 4.4	NIM 4.4	LKI 4.6	LVK 4.7	JIL 4.8	HWX 4.8
AWC 5.1	HFY 5.1	JGB 5.2	KDP 5.2	HIE 5.6	EXY 5.7
ZPP 6	EID 6.2	FLZ 7	JPP 7.3		

There were probably others who had stable signals, but due to the fact that CDY had several announcements to make, it made it possible to really examine his signal. At no time did it vary from 3.048 which in this writer's opinion is not too much to expect from the President of The Phil-Mont Mobile Radio Club, Inc. It would appear that 6.5 kc. or better is the spread of our net, which is beyond the range of most communications receivers. What to do? ? ? HA!!! One idea was suggested many long years ago (but to what extent it was implemented - who knows?) was to swap crystals between high and low stations, so it would seem that EZJ, CW, LNQ, HQJ and LEM should meet with JPP, FLZ, EID, ZPP, EXY and HIE for a start. I hope to continue this program on an average of twice per month. I'm not suggesting that anyone should or must change their equipment, but if you don't get an answer to your call or breakin, other things being equal, this may help you understand why. de W3PST

R A C E S

SSB below 21 Mcs. by 1 Jan 63, or else

I am not a state Radio Officer nor do I represent them but as a Local Radio Officer and labor under similar rules, I thought a few words (?) should be said about the recent order concerning SSB on 75 meters. This is not a pros and cons type of article about SSB, that has been done for the past 12-15 years in QST, CQ, 73 and many other publications, both amateur and commercial.

There seems to be some misunderstandings about plans mentioned from time to time concerning the State RACES going on 3999.5 kc. lower sideband on or about 1 Jan 63. It is a little more definite than that, not plans, but orders. and not from the State but from the Federal Level to the effect that no new RACES Communications Plans (without which there is no RACES or Federally matched funds for any project connected with communications) will be considered unless the frequencies in these Plans below 21 Mcs. intended for voice communication use SSB. All present Plans will be scrapped unless they are amended as such on or before 1 Jan 63. This information comes from the Executive Office of the President, Office of Civil and Defense Mobilization, dated May 1961.

Anyone who has monitored or participated in the annual "Operation Alert" knows that State Level communications on 75 phone leaves a lot to be desired and that is the understatement of the year. These tests have shown all too well the need for more channels. The best suggestion I have heard along these lines, from State Level, is to increase the use of VHF (2 - 200 kc segments in 10 meters, 2 - 400 kc segments in 6, 2 - 540 kcs in 2 and the whole 220 Mc band), but to what extent this has been utilized is unknown to me at this writing. SSB doubles if not quadruples the amount of available spectrum space over conventional DSB with carrier (AM), but in VHF the same frequency usually can be assigned to different locations throughout the State with little or no interference problems. In either case, someone is going to feel hurt and right now it seems to be the AM Kilowatts on 75 meters. But what else can be done ? !! It is not a matter of not being appreciative of all the time and effort these fellows have faithfully devoted to the C. D. service in the past, but rather, a matter of the purpose of the service, present and future, that of providing emergency communications for a civil defense authority, whenever and wherever it is needed, thereby serving the public in much the same manner as the fire and police and with the same status. Some have ventured the thought of leaving RACES, high and dry, and going with AREC where, they think, there are no limitations. Whenever I hear something like this, it occurs to me, that someone, unfamiliar with these organizations, might think that the AREC is a clandestine group of hams which can make its own rules. One must remember, however, there are limitations there, too. It is true that AREC can initially move into an emergency area, set up and establish communications, BUT if the emergency is great enough, natural or otherwise, whereby all amateur operation is "Cease and Desist" or if CD is called upon to take over, then the AREC operator must take off his AREC hat and if he has the authority, rearrange the letters, add one and don his RACES hat. If he cannot, he can't operate.

So, unless we get another piece of legislation to the contrary, and that at the Federal Level, it is SSB 1 Jan 63, or else.

I have just heard of efforts being made toward establishing an AM Emergency Net, but not being RACES, it is beyond the scope of this article. de W3PST

swiped from the RACES Bulletin, Philadelphia Civil Defense Council

PHIL-MONT FROM W3TKQ

Progress toward the new W3TKQ station has been slow but steady this past month. At his writing (mid-month) QQH has finally been given the green light after several weeks of ironing out details in the station plan. So far the new console has not arrived but I am hoping that it will come in as expected around March 15th. I am working on the plans for the listening posts outside our enclosure, and it seems that the Bell Telephone Company of Penna. will help us out with the latest color telephones sets and the necessary amplifiers, etc. It is not too soon to start planning the station opening and so I am calling a meeting of the W3TKQ committee sometime before the next regular meeting. Any ideas will be more than welcome---just contact and of the committee members, AK, NIP, AWH, CDY, QQH, and myself as soon as possible so that we can have a real opening.

No doubt most of you know by now that the recent snow storm took the whip off our intercom antenna. I expect that repairs will be completed on Saturday the 17th and W3TKQ will be back in business on 29.493 once again.

Fred W3ADV

POTATO PROVES POLARITY (Cleveland Institute)

Do you ever have the occasion to determine which terminal of a circuit is the positive and which is negative? Cut a raw spud in half. Poke the ends of the two leads into the tuber and watch the results. The area you injured with the positive wire will turn black and blue. Naturally, there will be a negative reaction at the negative wire; nothing happens there.

If you do not have a potato handy you can dip the wires into a solution of a teaspoon of salt or vinegar in a jigger of water. Add crushed ice and a twist of lemon-- wait, we are on the wrong recipe. We mean bubbles will form on the wires. The wire with the most bubbles is the negative terminal. If you see equal quantities of bubbles on both wires, the current in the circuit is ac.

JR. RADIO CLUB

The boys have decided to try a net, they have chosen a frequency on 40CW and will call it the FIN (Franklin Institute Net). The announcement of the proposed fee for amateur license provoked a real discussion. Since there was no time to allow discussion to continue the boys were asked to make a debate out of this subject for the next meeting March 17th. This they accepted by choosing a captain for each side. Judging from the early remarks it should prove interesting.

SWAP AND SHOP

W3CDY

Heath SB10 -Excellent condition, guaranteed. \$65.00
W3JHE - 4006 N. 12th St. Phila. 40, Pa
Phone: DA-4-1394

A NEW COMER

Jim Lydon currently a prospective ham, got 99% on a code proficiency test upon induction into the Army, the test consisted of copying two sets of characters, if they matched he put down "T" for true, and "F" for false. When he arrived at basic training camp, some crusty old first sergeant asked him if he was a ham; at that time Jim had never heard of amateur radio, but the sergeant could not believe he had never studied code---Jim became an army radio operator, and now is hoping to get his own ticket, and get a couple of his boys interested in the hobby.

W3UMK

NEW NET CONTROL STATION

K3GNW, Enie will be one of the net control stations for 10 on 10, replacing W3UMK who did a fine job. Dick will still hold forth on the Orange Juice net each morning. We would like to thank Dick for his fine work and Enie for taking over.

Charlie W3UWM

HINT AND KINK (Florida Skip)

Any beam antenna is tuned best for only one frequency but can be tuned for several frequencies, after adding a variable condenser and a home brew clutch that is operated from the ground.

If your beam antenna has a rotor motor and a hollow mast from the meter to the beam, then just run a one-eighth inch rod through that mast to a simple clutch made of plastic the shape of a two prong fork. It will engage the rotor known on the variable condenser which is narrow enough to fit loosely between the two prongs. A non inductive spring should be used to engage the clutch and a nylon cord to pull from the ground (or solenoid) to disengage the clutch.

ZERO BEAT PLEASE (Florida Skip)

ZERO -- Some do, some do not, Two common methods are used, tune the incoming signal to max strength, then slide your VFO signal into it until the audio beat note decreases in pitch to zero---that is not beat note is heard.

Some VFO's are either too weak or too strong to make this method accurate. In that case, with your receiver BFO control set near center tune the incoming signal to zero beats with your receiver BFO. Then slide the transmitter VFO signal onto the frequency until it also zeros with the receiver BFO.

Do not change the original setting of the BFO pitch control during the zeroing process. Most equipment shifts frequency slightly during warm up so your frequency should occasionally be rechecked.

JOURNAL CAPTION

We had 29 mobiles at Playhouse in the Park for picture taking to be shown on
TV---Hope they all turn out for Field day too----when unsoldering printed
circuits, use a small or medium size drug store syringe to suck up excess solder--
W3IRS is a new papa, congrats Franky---W3FB would like some info on getting Heath
HP-1 12v transistor power supply to work on 6v--need only 300v--supply delivers 600v
from 12v, any answers??? W3NIP and W3VVS both mobile two having QSO on N. J. Wapiti
pike, NIP's headed for Canadian skiing and the VVS's for week-end in Long Island--
small world----W3HND new car--new posterior---two weeks rest---QOH putting Frank's
mobile gear in new wagon so Frank won't miss a Phil-Mont day---W3CDY can use more
help with Junior Electronics course at the Institute, any one able to spare a few
hours on Saturday afternoons contact Lloyd---be on the look-out for another Auction
in the near future, to be sponsored by the Fr. Amateur Radio Club to help with
their expenses. If any one has anything to donate to the club that can be auctioned
off it will be greatly appreciated, contact W3CDY---Just finished working Bill,
W3YHV/M5, Bill is in San Diego, Calif. quite a few of the gang got in on it---WRCV
Sundays at 1035 has a ten minute program which had on the 18th Mr. Neathery and
Fred, W3ANV subject communications--March 29th program was on W3IKQ---QOH is
putting PMR8 in Phila Electric Co. car for purpose of helping P.E. run down inter-
ferences--this is a step in the right direction to help out the ham's---W3ZEN now
returning from hospital and will concentrate on hobbies- ham radio, photography,
rifles and travel, Harold has all hand mobile---UQV recommends that HE-43, HE-
50 owners discard the aluminum mounting screws or bolts and use more substantial
hardware---K3JNM back from California, liked it so much he sent brother Bill out-
--if you wanted to see democracy in action last mid-month was a good chance---
Bill, W3YHV was to have meeting at his QTH but had to leave town the last minute,
W3JNM took the meeting to his house, W3ZPP and K3JNK hauled refreshments from YHV's
to QMK's ---Dick added to it and word of swap in QTH's was passed along Channel 1--
W3AWO and W3JYA and KYL's have been square dancing Tuesday evenings--no wonder
Jim don't make mid-month's, resting up Dad??--AJO changing shack around---OWK
made orange juice---HWX won a beer from QMK stating it was a messenger that broke
QMK said DW wouldn't be up that early---Joe to collect at Reading---WNC and AWH
working on TVI complaint involving a young, but well known DX-er in the Frank-
ford Club---QNC running 150 watts to a ground plane on 29.5 plus a few kc--QMK
called him but no reply---EID talking to WNC about alternator troubles---QOH and
CDY offered to help---citizen banders now set up headquarters on Chicago similar
to our A.R.R.A., these boys are really going to town--did lot's of work in the
seashore disaster---REMEMBER YOUR NEW EDITOR IS K3KUD, send material to Bob---
Ray, KP4HM who is the goodwill medicine man from the island of Porto Rico was
checked in on 10 on 10 by way of phone patch through W3DWW. Ray wants to be
remembered to all on Phil-Mont and hopes to check in by person when 10 permits-
nice to hear from you Ray---K3GNE was informed by Ray who reads the "Blurb" from
front to back with his friends on the island, glad you enjoy it Ray---on Sat.
March 17th the Phil-Mont antenna for W3IKQ at the Institute was repaired on the
job was W3QQH, W3OWK, W3DWW, K3HWX, K3KDP, and K3GNE--the real fun did not start
until K3KDP was on his way home, it seems he has a flopping radar disc on the top
of his Falcon---it is operated by an electric motor at two different speeds this
provided many laughs for the mobiles following him and also slowed up would be
speeders.

GENERAL ELECTRIC (NEWS BUREAU)

A new type ceramic voltage reference tube tolerant to high levels of nuclear radiation and temperature is under development at the General Electric Receiving Tube Department.

The tube is being developed to complement G.E.'s line of tiny ceramic receiving tubes and shows qualities superior to existing types of small voltage reference devices, according to A. D. Sanders, tube development engineer.

"A power supply circuit using this tube and other radiation-tolerant components has survived an integrated flux level of approximately 2×10^{15} nvt over a period of 30 hours at 300 degrees c. and 70 hours at 250 degrees c. without failure", Sanders said.

The diode is made of forsterite ceramic and titanium, as are other ceramic receiving tubes of General Electric, and is cylindrical in shape-- $\frac{1}{2}$ inch in diameter and $\frac{5}{8}$ inch long.

The planar geometry of the construction is readily adaptable to the construction of multi-element series where one electrode serves as cathode and anode for adjacent tubes.

A mixture of neon and argon is used in combination with a pure molybdenum cathode to obtain a maintaining voltage of 82.5 volts. A trace of radioactive krypton is added to insure reliable ignition in the absence of light inside the ceramic envelope.

Average characteristics reported by Sanders from development tests show: maintaining voltage (or anode voltage drop), 83 to 87 volts (plus or minus 0.5v.) when the anode current is varied from 1.5 to 10.0 ma., respectively; anode breakdown voltage maximum (in both ambient light and total darkness), 125v. maximum; regulation, 5v. for anode currents from 1.0 to 10.0 ma., and 1.0 v. for anode currents from 1.5 to 3.5 ma.; voltage jump with anode current from 1.0 to 10.0 ma., 5 millivolts maximum; and maximum drift in first 25 hours with envelope at 300 degrees c. is 100 millivolts with 2.5 ma. anode current and is 1.0 volt with anode current of 5 ma.

The temperature coefficient of operating voltage from 25 degrees c. to 300 degrees c. is minus 3v maximum. Shock and vibration output under standard tests is 5 millivolts.

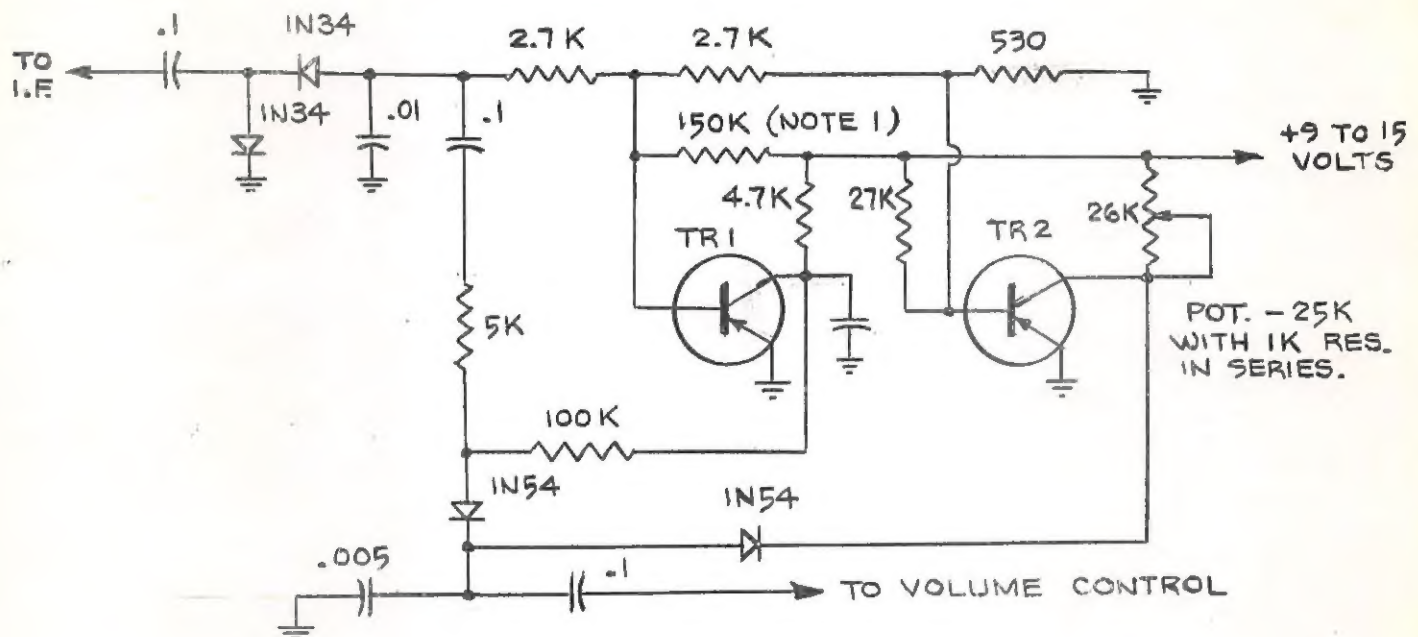
A comparison of the foregoing with manufacturers' specifications for similar glass tubes such as the 5651 shows that the ceramic tube offers superior performance, Sanders said.

PHIL-MONT STAG DINNER

April mid-month will be held on April 11th as usual this will be our Stag Dinner at the Alpine Inn on Baltimore Pike in Springfield (Delaware County) Penna. Cocktails at 6:00PM---Dinner at 6:30 to be followed by business meeting at QTH of WJWNC. Plan to attend, it's fun.

TECHNIGRAM — W3KDO

March, 1961



NOTE:

1. 150K resistor needs selection to give a no signal collector current of 1 to 3 MA at TR2.
2. Part are mounted on sheet 1 1/4" x 2 1/2".
3. IMPORTANT Parts used should be as small as possible because of noise pulse radiation and pick up. Low voltage transistor capacitor (Lafayette Radio Subminiature Square Ceramic Capacitors 75V).
4. TR1 and TR2 - 2N35, 2N229 or 2N233A, both transistors must be the same.
5. Placement or location of this TNS is important. Do not place it too close to audio circuits 1/2 inch away if possible.

HARRY W3KDO

SWAP AND SHORTS

For Sale: 1 Heathkit Apache transmitter (model 12-1) factory wired and tested-- perfect condition best offer over \$180.00
 Jerry Sadur K3ECT 1640 Surrey Lane, Bayside, Pa.
 HI 6-1983 JA 8-5019

For Sale: IM-100 no modifications \$110.00
 BC342 receiver 45.00
 Two--10 foot sections triangular steel
 mast with mounting pedestal 15.00
 Tom W3SAA

For Sale: Harvey Wells R9-A hammaster receiver and adapter plug for mobile power supply.
 J. Torman OL 9-0632

For Sale: 1 Custom built transmitter 600 watts-please 1770 watts CW rock and cabinet, completely metered (80 thru 10 meters, also covers MARS frequencies) separate speech amplifier and VFO-push to talk or manual control. Spare tubes for final and modulator. \$225.00 complete or \$250.00 with mike and communications receiver--a complete station. Will consider trade for mobile equipment.
 1 BC 221-M frequency meter- mint condition. Complete with original calibration book. \$80.00
 1 Johnson Viking Match box 250 watt complete with manual new condition. \$28.00
 1 Panadaptor Model PCA-27-200 complete with manual and spare 902A tube. \$35.00
 1 Johnson Viking 5N2 transmitter complete with Viking 5N2 VFO manuals for both---\$135.00
 Wally W3BGR

Wanted: Johnson low pass filter or B & W one kw rating--10 meter ground plane antenna.
 W3RSC EL 6-1843

Wanted: Heath Commanche mobile receiver and power supply.
 K3CER MI 2-6298

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